PART NO. LWD280-10129-21 & -22 — GAEC SCH NO 31-2

MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO.	REQD PER MODULE OR END ITEM
LEM	LDW280-23031	LEM-6(36)	1EA
		LEM-5(35)	
		LEM-4(34)	
		LEM3(33)	
LEM	LDW280-23031	LTA3(13)	1EA

PART NO. LDW280-10129-13,-14,-15 & -16 — GAEC SCH NO 31.2

MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO.	REQD PER MODULE OR END ITEM
LEM	LDW280-28031	LEM-2(32)	1EA
LEM	LDW280-28031	LEM-1(31)	1EA
LEM	LDW280-28031	LTA-8(18)	1EA

PART NO. LDW280-10129-17 — GAEC SCH NO. 31-2

MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO.	REQD PER MODULE OR END ITEM
LEM	LDW280-23031	LEM-6(36)	4
LEM	LDW280-23031	LEM-5(35)	4
LEM	LDW280-23031	LEM-4(34)	4
LEM	LDW280-23031	LEM-3(33)	2
LEM	LDW280-28031	LEM-2(32)	2
LEM	LDW280-28031	LEM-1(31)	2
LEM	LDW280-28031	LTA8(13)	2
LEM	LDW280-23031	LTA-3(13)	2

PART NO. LDW280-10129-19 — GAEC SCH NO

MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO.	REQD PER MODULE OR END ITEM
LEM	LDW280-23031	LEM-6(36)	4
LEM	LDW280-23031	LEM-5(35)	4
LEM	LDW280-23031	LEM-4(34)	4
LEM	LDW280-23031	LEM-3(33)	4
LEM	LDW280-28031	LEM-2(32)	4
LEM	LDW280-28031	LEM-1(31)	4
LEM	LDW280-28031	LTA-8(18)	4
LEM	LDW280-23031	LTA-3(13)	4

PART NO. LDW280-10129-11 & -12 — GAEC SCH NO. 31-2

MODEL OR END ITEM	NEXT ASSY	MODULE OR SER NO.	REQD PER MODULE OR END ITEM
LEM	LDW280-23031	LEM-6(36)	1EA
LEM	LDW280-23031	LEM-5(35)	1EA
LEM	LDW280-23031	LEM-4(34)	1EA
LEM	LDW280-23031	LEM-3(33)	1EA
LEM	LDW280-28031	LEM-2(32)	1EA
LEM	LDW280-28031	LEM-1(31)	1EA
LEM	LDW280-28031	LTA-8(18)	1EA
LEM	LDW280-23031	LTA-3(13)	1EA

SH REV STATUS: FOR DESCRIPTION OF REV SEE SUBQ SH

SHEET	1	1.10	2	3
REV	C	C	C	C

LAST SECT LTR USED

LAST DASH NO. USED -22

GRUMMAN REL INFO Bc

PRIM NO. 215 Jr.(01) PP12B

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.
TOLERANCE UNLESS SPECIFIED FRACTIONS — DECIMALS — ANGLES
±1/32 ±.020 ± 1/2°

ORIG DWG AUTH

DETAIL SPEC REQUIREMENT

CLASS II ENGRG CHANGE

CLASS I ENGRG CHANGE

CONTRACT NO. NAS 9-1100

LINE ITEM # 1

DOCUMENTATION TYPE

DRAWN BY	H.OLSEN-2-26-65	RELIABILITY	3-24
LAYOUT BY	W.TRAUT 3/11/65		
CHECKED BY	M		
GR LEADER	3/-		
VEH DES INT	3/5/65		
STRUCT			
STRUCT	Hildebrand 3/22	PROJ ENGR	3/24
WEIGHTS	3-23	RELEASE	3/25/65

GRUMMAN AIRCRAFT ENGRG CORP.
BETHPAGE, L. I., NEW YORK

STIFFENER
ASCENT STAGE-IMU CABIN BEAM

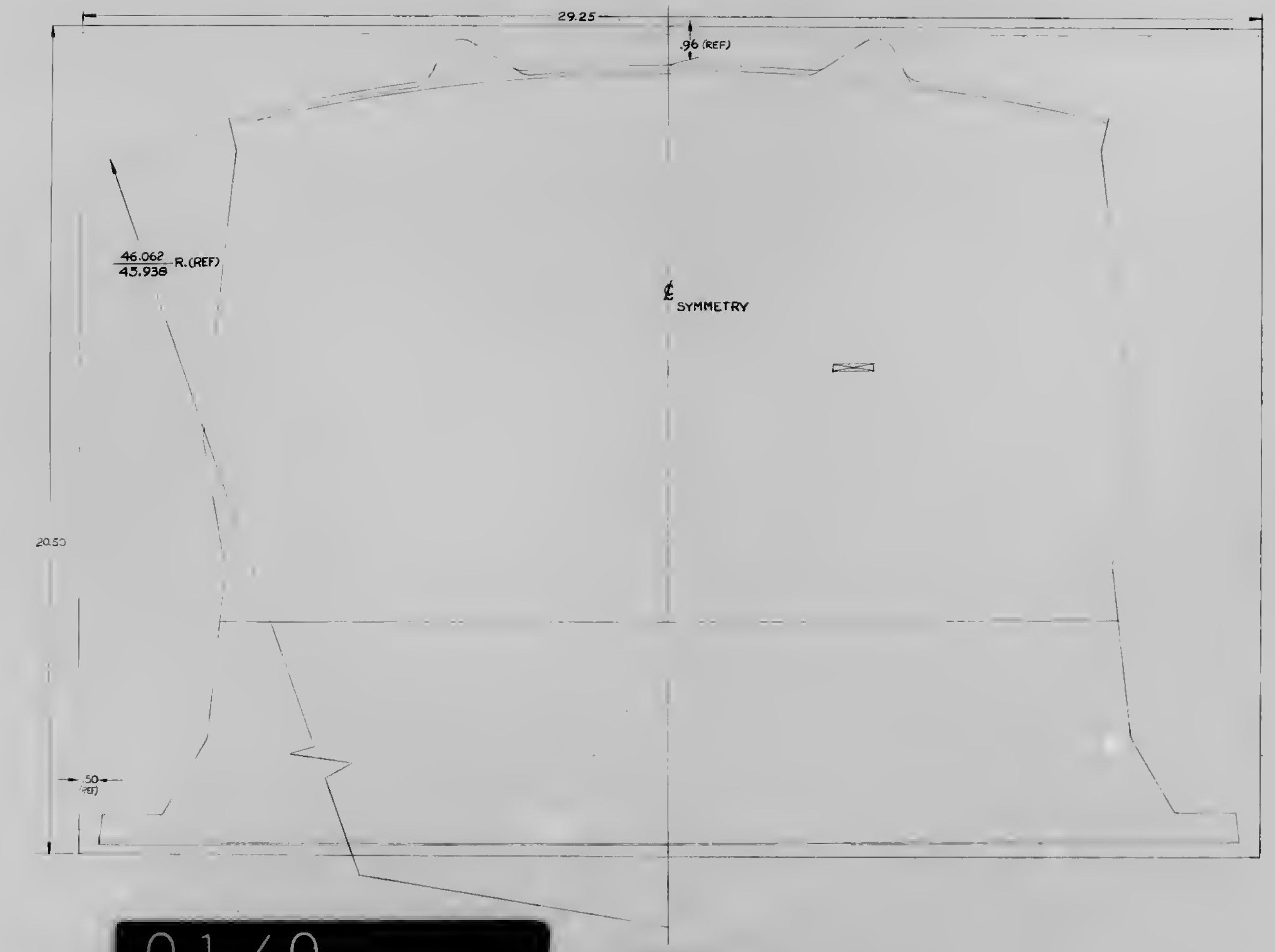
SIZE B | CODE IDENT NO. 26512 | LDW280-10129 | C

SCALE NONE | SHEET | OF 4

ENG 77.1 9-64

01

NAS 9-1100


29.25
.96 (REF)
46.062
45.938 R. (REF)
℄ SYMMETRY
20.50
.50 (REF)

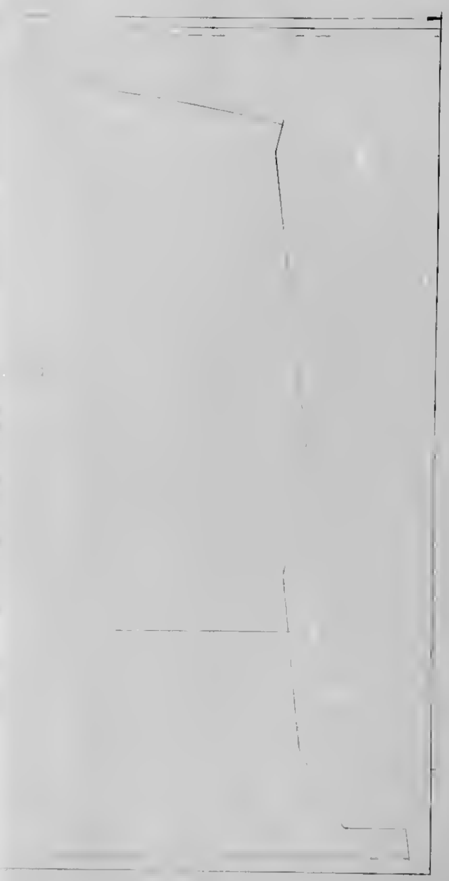
01/0.

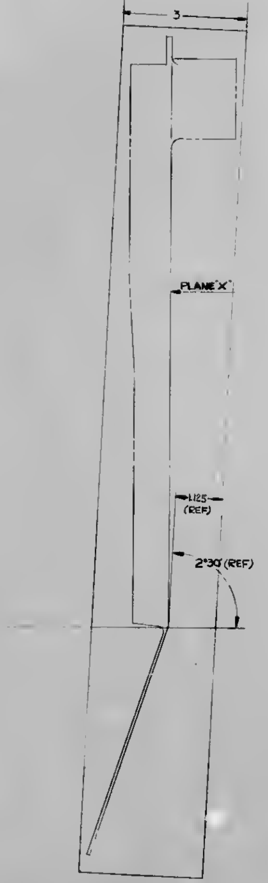
LDW280-10176-1

NAS 9-1100

CODE IDENT NO. 26512

LDW 280-10176 3





NOTES:

1. 2219-T87 ALUMINUM ALLOY PLATE PER MIL-A-8920A EXCEPT PREFORGED PRIOR TO ROLLING STRESS RELIEVED BY STRETCHING
2. QUALITY REQUIREMENTS.
3. ULTRASONIC TEST TO SNT CLASS 'A' RATING AS D-ULTRASONIC GRID MAPS ARE REQUIRED.
4. CHEMICAL & PHYSICAL RANGE ANALYSIS TO ACCOMPANY SHIPMENT
5. GUARANTEED PROPERTIES:

	ULTIMATE KSI	YIELD KSI	ELONGATION %
LONGITUDINAL	63	50	5
LONG TRANSVERSE	63	50	4
SHORT TRANSVERSE	63	50	3

MANUFACTURING OPERATIONS

UNLESS OTHERWISE SPECIFIED NOTES CHECKED ✓ APPLY TO THIS DWG.

RUBBER STAMP PART NUMBER AND ALL OTHER MARKINGS IN SQUARE MARKED ▭ USE BOTH SIDES IF NECESSARY.	✓
FILLET SIZE INSIDE CORNER RADII TOLERANCES .000 TO .030 ± .010 .030 TO .250 ± .015 OVER .250 ± .030	
DEPTH SHOWN FOR TAPPED HOLES IS FULL THDS. 2-3 IMP THDS. BEYOND PERMISSIBLE.	
EXTERNAL THREAD LENGTH SHOWN INCLUDES 2 IMPERFECT THREADS MAX.	
DO NOT CADMIUM PLATE & PAINT HOLES OR SURFACES MARKED WITH DOUBLE ASTERISK.	
MISMATCH STEP OF ± .010 PERMISSIBLE DUE TO CHANGE OF CUTTERS AT INSIDE INTERSECTING SURFACES.	
DIAMETERS MARKED MUST BE CONCENTRIC WITHIN FULL INDICATOR READING	
HOLES MUST BE KEPT FREE OF CHROME PLATING SOLUTION.	
ALL DIMENSIONS SHOWN TO BE MET AFTER CADMIUM PLATING. THICKNESS OF PLATE .0003 MIN. TO .0006 MAX. MIN. THICKNESS TO BE .0002 ON THREADED AREAS. NO ALLOWANCE FOR PLATING IN HOLES	
125 ▽ SURFACE ROUGHNESS INCLUDING REAMED HOLES PER MIL-STD-10	
[illegible] ▽ FOR ALL DRILLED HOLES	
REMOVE ALL BURRS. BREAK ALL EDGES .005-.010	
INSPECTION INFORMATION MINIMUM PERMISSIBLE AVERAGE EDGE DISTANCE MARKED IS	
SYMBOL ∮ DENOTES SURFACE TO BE MACHINED	
UNLESS OTHERWISE SPECIFIED TOLERANCE ON FLANGES IS ± 1/32	
LENGTHS OF AN, MS & NAS AL ALY RIVETS SHORTER THAN 1 INCH ARE NOT SPECIFIED.	
TOLERANCE ON LOFTED DELINEATIONS IS	

DWG SIZE IS X PO

PRINTING INFO ONLY
FULL SIZE SHEET AREA (X 72)— 15 SQ. FT.
1/2 SIZE SHEET AREA (1/4 OF FULL)— 3 3/4 SQ. FT.
PRINT TRIM LINE

LDW 280-10176

LDW 280-10176

NAS 9-1100

GRUMMAN AIRCRAFT ENGRG CORP., BETHPAGE, L. I., NEW YORK				
LEM	SIZE H	CODE IDENT NO. 26512	LDW 280-10176	
	SCALE FULL		SHEET 3	

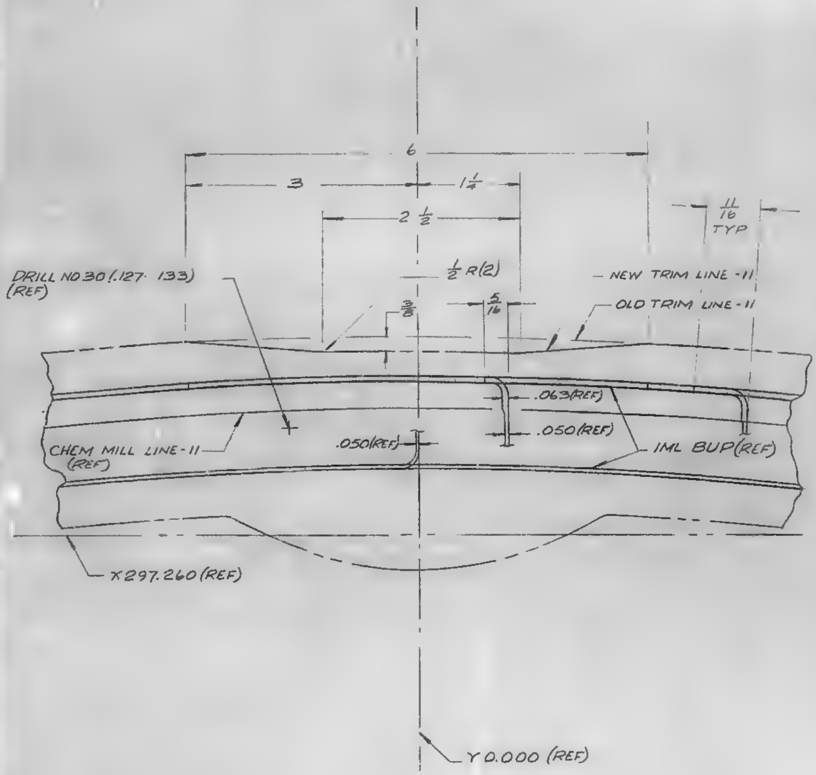
CODE IDENT NO. 26512	SHEET
LDW 280-10176	3

0270

ENG 12.2 REV 2-65

GRUMMAN AIRCRAFT ENGINEERING CORP.
CODE IDENT NO. 26512
ENGINEERING ORDER

DWG. NO. LDW280-10221 | ED NO. B1
CONTROL INFO NO. LDW280-5745


6
3
1 1/4
2 1/2
11/16 TYP
1/2 R(2)
DRILL NO30 (.127-.133) (REF)
3/8
5/16
NEW TRIM LINE -11
OLD TRIM LINE -11
.063(REF)
.050(REF)
.050(REF)
CHEM MILL LINE -11 (REF)
IML BUP (REF)
X297.260 (REF)
Y0.000 (REF)

3

DETAIL SPEC REQ		CL III ENGRG CHG		CL I ENGRG CHG	

REASON FOR ED: POSSIBLE INTERFERENCE FIT WITH IMU STRUCTURE

DESCRIPTION OF ED: REVISED TRIM LINE OF -11

GAEC EO RELEASE: 4/4/66

MODEL	PROCURING ACTIVITY NO.	GAEC UNIT NO.	SUB CONTR UNIT NO.
LEM		LTA-3 (13)	LTA-B (18)
LEM		LEM 1 (31), 2 (32), 3 (33),	
LEM		4 (34), 5 (35), 6 (36)	

DRAWING CHANGE REQD: REVISE DWG ✓ | RECORD ED
DISPOSITION OF PARTS: REWORK ✓ | SCRAP

APPROVED BY	Sop	A.41		—			Botts
DATE	3/29/66	4-1		—	4/1	4-4	4-5-66
	VD1	~~WTS~~	RELIAB. GROUP	GROUP LEADER	STRESS GROUP	LIAISON ENGRG	PROJ ENGRG	GOVT

PRIORITY: C

DRAWING TITLE: FRAME - ASCENT STAGE - CABIN - UPPER - #255375

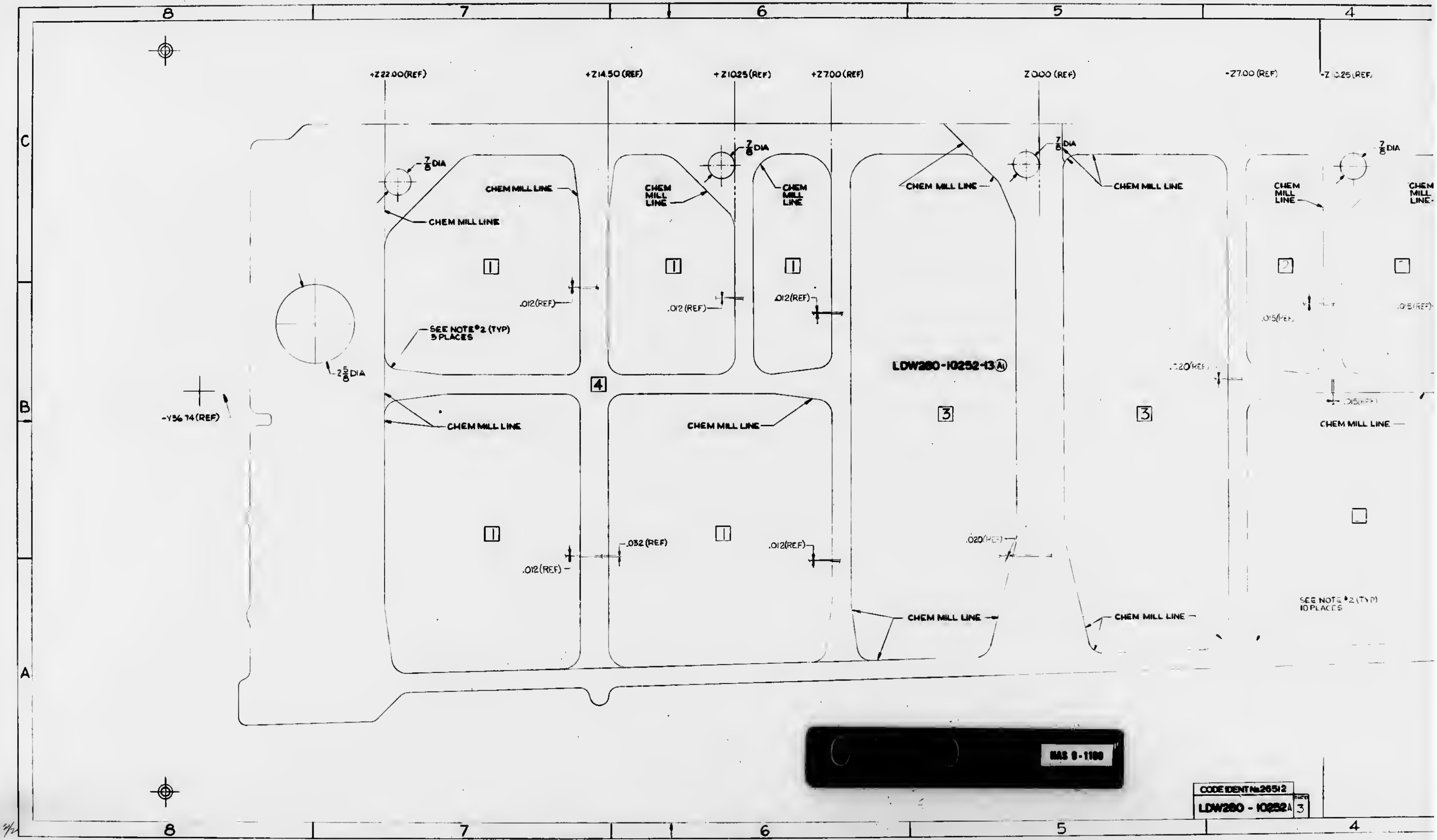
DRAWING NO: LDW280-10221

ED NO. B1

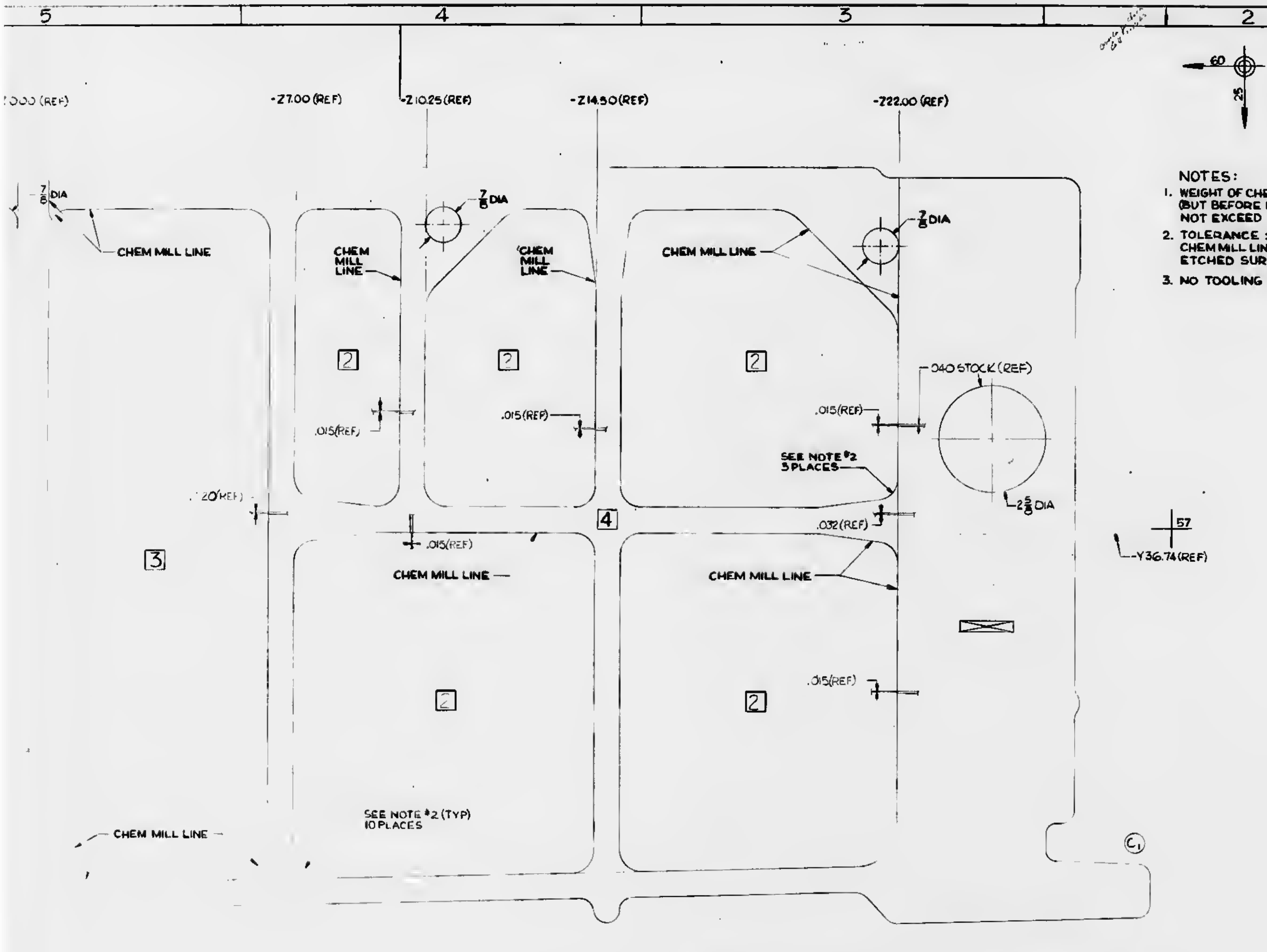
ISSUED BY PH MIHAN EXT 7033 3/26/66 SECTION VD1 - CABIN GROUP NO. 335 PL 35

01

NAS 9-1100


8
7
6
5
4
C
B
A
+Z22.00(REF)
+Z14.50 (REF)
+Z10.25(REF)
+Z7.00 (REF)
Z0.00 (REF)
-Z7.00 (REF)
-Z10.25(REF)
$\frac{7}{8}$DIA
$\frac{7}{8}$DIA
$\frac{7}{8}$DIA
$\frac{7}{8}$DIA
CHEM MILL LINE
CHEM MILL LINE
CHEM MILL LINE
CHEM MILL LINE
CHEM MILL LINE
CHEM MILL LINE
CHEM MILL LINE
CHEM MILL LINE
CHEM MILL LINE
CHEM MILL LINE
CHEM MILL LINE
CHEM MILL LINE
CHEM MILL LINE
1
1
1
1
1
2
3
3
4
.012(REF)
.012 (REF)
.012(REF)
.012(REF)
.032 (REF)
.012(REF)
.015(REF)
.015(REF)
.020(REF)
.020(REF)
.015(REF)
SEE NOTE $^{\#}$2 (TYP) 5 PLACES
SEE NOTE $^{\#}$2 (TYP) 10 PLACES
-2$\frac{5}{8}$DIA
-Y56.74(REF)
LDW280-10252-13Ⓐ
CODE IDENT No 26512
LDW280 - 10252A
SHEET 3
8
7
6
5
4

MAS 8-1190


5
4
3
2
1
.000 (REF)
-Z7.00 (REF)
-Z10.25 (REF)
-Z14.50 (REF)
-Z22.00 (REF)
60
25
7/8 DIA
CHEM MILL LINE
CHEM MILL LINE
7/8 DIA
CHEM MILL LINE
CHEM MILL LINE
7/8 DIA
2
2
2
.040 STOCK (REF)
.015 (REF)
.015 (REF)
.015 (REF)
SEE NOTE #2 3 PLACES
2 5/8 DIA
.20 (REF)
4
.015 (REF)
.032 (REF)
3
57
-Y36.74 (REF)
CHEM MILL LINE
CHEM MILL LINE
.015 (REF)
2
2
SEE NOTE #2 (TYP) 10 PLACES
CHEM MILL LINE
C1

NOTES:
1. WEIGHT OF CHEM MILLED WEB AFTER FINAL TRIM (BUT BEFORE RIVET HOLES ARE DRILLED) SHALL NOT EXCEED 2.70 POUNDS.
2. TOLERANCE ±.125 AT TANGENCY POINTS OF CHEM MILL LINE CORNER RADII BETWEEN TWO ETCHED SURFACES
3. NO TOOLING HOLES PERMITTED IN PARTS.

LDW280-10252-13

CHEM MILL LINE TOLERANCE: [illegible]

SYMBOL	THICKNESS AFTER CHEM MILLING	*DEPTH OF CUT
1	.012 $^{+.003}_{-.001}$	.028 (REF)
2	.015 $^{+.003}_{-.001}$	.025 (REF)
3	.020 $^{+.003}_{-.002}$	.020 (REF)
4	.032 $^{+.004}_{-.002}$	.008 (REF)

RUBBER STAMP PART NUMBER

NAS 9-1100

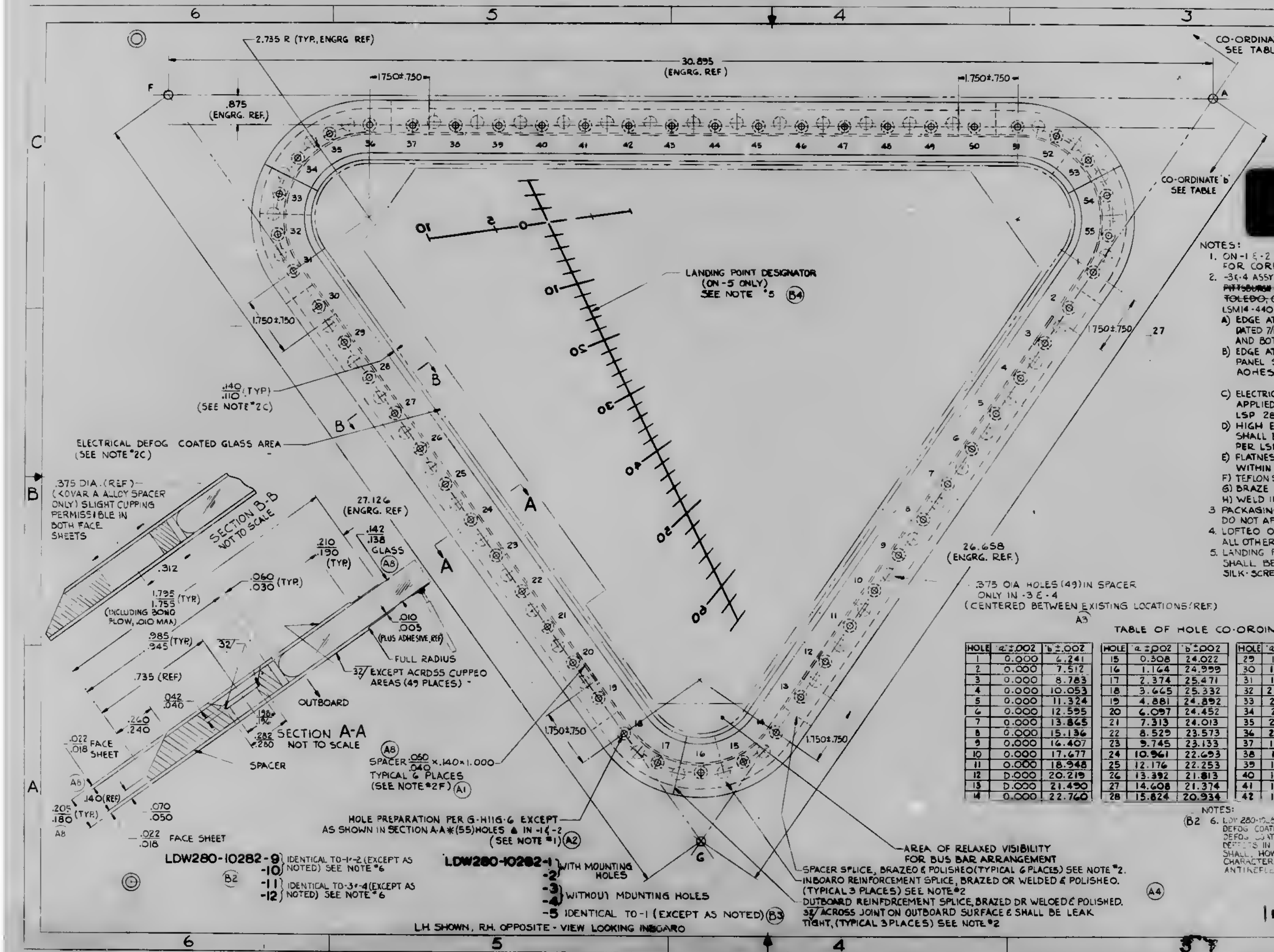
CODE IDENT No. 26512
LDW280 - 10252 A SHEET 3

GRUMMAN AIRCRAFT ENG'G CORP. BETHPAGE, L. I. NEW YORK
LEM
SIZE H | CODE IDENT NO. 26512 | LDW280 - 10252 | C
SCALE FULL | SHEET 5

FOR PHOTO REPRODUCTION K2

LDW280-10252 C

01/02


6
5
4
3
2
C
B
A
2.735 R (TYP. ENGRG REF)
30.895 (ENGRG. REF)
1.750±.750
CO-ORDINATE 'a' SEE TABLE
CO-ORDINATE 'b' SEE TABLE
.40
.25
F
.875 (ENGRG. REF.)
LANDING POINT DESIGNATOR (ON -5 ONLY) SEE NOTE 5 (B4)
.140/.110 (TYP) (SEE NOTE 2C)
ELECTRICAL DEFOG COATED GLASS AREA (SEE NOTE 2C)
.375 DIA. (REF) (KOVAR A ALLOY SPACER ONLY) SLIGHT CUPPING PERMISSIBLE IN BOTH FACE SHEETS
SECTION B-B NOT TO SCALE
.312
27.126 (ENGRG. REF)
.142/.138 GLASS (A8)
.210/.190 (TYP)
.060/.030 (TYP)
1.795/1.755 (TYP) (INCLUDING BOND FLOW, .010 MAX)
.010/.005 (PLUS ADHESIVE, REF)
FULL RADIUS
.985/.945 (TYP)
32/
32/ EXCEPT ACROSS CUPPED AREAS (49 PLACES)
.735 (REF)
.042/.040
OUTBOARD
.260/.240
.128/.116
.282/.280
SECTION A-A NOT TO SCALE
.022/.018 FACE SHEET
SPACER
(A8)
.140 (REF)
.205/.180 (TYP)
.070/.050
.022/.018 FACE SHEET
SPACER .050/.040 × .140 × 1.000 TYPICAL 6 PLACES (SEE NOTE 2F) (A1)
HOLE PREPARATION PER G-H116-6 EXCEPT AS SHOWN IN SECTION A-A *(55) HOLES ▲ IN -1 & -2 (SEE NOTE 1) (A2)
26.658 (ENGRG. REF)
.27
.375 DIA HOLES (49) IN SPACER ONLY IN -3 & -4 (CENTERED BETWEEN EXISTING LOCATIONS (REF) (A3)
G
AREA OF RELAXED VISIBILITY FOR BUS BAR ARRANGEMENT
SPACER SPLICE, BRAZED & POLISHED (TYPICAL 6 PLACES) SEE NOTE 2.
INBOARD REINFORCEMENT SPLICE, BRAZED OR WELDED & POLISHED. (TYPICAL 3 PLACES) SEE NOTE 2
OUTBOARD REINFORCEMENT SPLICE, BRAZED OR WELDED & POLISHED. 32/ ACROSS JOINT ON OUTBOARD SURFACE & SHALL BE LEAK TIGHT, (TYPICAL 3 PLACES) SEE NOTE 2
(A4)
LDW280-10282-9, -10 IDENTICAL TO -1 & -2 (EXCEPT AS NOTED) SEE NOTE 6
-11, -12 IDENTICAL TO -3 & -4 (EXCEPT AS NOTED) SEE NOTE 6
(B2)
LDW280-10282-1, -2 WITH MOUNTING HOLES
-3, -4 WITHOUT MOUNTING HOLES
-5 IDENTICAL TO -1 (EXCEPT AS NOTED) (B3)
L.H. SHOWN, R.H. OPPOSITE - VIEW LOOKING INBOARD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55
10 20 30 40 50 60

NOTES:

1. ON -1 & -2 FOR HOLES MARKED ▲, SEE DRAWING LDW280M10105 & LDW280M10367 FOR CORRESPONDING HOLE PATTERN.
2. -3 & -4 ASSY MAY BE PURCHASED FROM CORNING GLASS WORKS, CORNING, N.Y (14674), ~~PITTSBURGH PLATE GLASS CO, PITTSBURGH, PA (47695) OR LIBBY~~ OWENS FORD GLASS CO., ~~TOLEDO, OHIO (75829)~~ AND SHALL BE FABRICATED IN ACCORDANCE WITH LSM14-4401 EXCEPT 'MOR' SHALL BE 50,000 PSI, AND THE FOLLOWING:
   - A) EDGE ATTACHMENT SHALL BE FABRICATED FROM KOVAR 'A' ALLOY PER AMS 7728 DATED 7/15/63. FACE SHEETS SHALL BE COLD ROLLED, SPACERS SHALL BE HOT ROLLED AND BOTH BRIGHT ANNEALED.
   - B) EDGE ATTACHMENT SURFACE PREPARATION, GLASS PANEL SURFACE TREATMENT, AND STRUCTURAL BOND ADHESIVE SYSTEM - PER LSP280-8.
   - C) ELECTRICAL DEFOG COATING SYSTEM SHALL BE APPLIED TO OUTBOARD SURFACES OF GLASS PER LSP 280-8.
   - D) HIGH EFFICIENCY ANTIREFLECTION COATING SYSTEM SHALL BE APPLIED TO INBOARD SURFACES OF GLASS PER LSM14-4402.
   - E) FLATNESS - PANEL ASSYS -3 & 4 SHALL BE FLAT WITHIN ±.010.
   - F) TEFLON SPACERS (6) TO BE FABRICATED FROM TFE PER AMS 3651B.
   - G) BRAZE IN ACCORDANCE WITH MIL-B-7883.
   - H) WELD IN ACCORDANCE WITH MIL-W-8611.
3. PACKAGING SHALL IDENTIFY PROPER PART NUMBER. DO NOT AFFIX IDENTIFICATION ON PART PROPER.
4. LOFTED DELINEATIONS TO HAVE ±.015 TOLERANCE. ALL OTHER DIMENSIONS TO HAVE ±.005 TOLERANCE, EXCEPT AS NOTED.
5. LANDING POINT DESIGNATOR (LPD) - THE LANDING POINT DESIGNATOR SHALL BE APPLIED TO THE OUTER SURFACE OF THE PANEL BY SILK-SCREEN PROCESS OR EQUIVALENT

TABLE OF HOLE CO-ORDINATES

HOLE	'a' ±.002	'b' ±.002	HOLE	'a' ±.002	'b' ±.002	HOLE	'a' ±.002	'b' ±.002	HOLE	'a' ±.002	'b' ±.002
1	0.000	6.241	15	0.308	24.022	29	17.040	20.494	43	12.708	9.744
2	0.000	7.512	16	1.164	24.999	30	18.256	20.054	44	11.654	9.024
3	0.000	8.783	17	2.374	25.471	31	19.472	19.614	45	10.601	8.304
4	0.000	10.053	18	3.665	25.332	32	20.477	18.975	46	9.547	7.583
5	0.000	11.324	19	4.881	24.892	33	21.115	17.969	47	8.493	6.863
6	0.000	12.595	20	6.097	24.452	34	21.264	16.787	48	7.439	6.143
7	0.000	13.865	21	7.313	24.013	35	20.898	15.654	49	6.386	5.423
8	0.000	15.136	22	8.529	23.573	36	20.084	14.784	50	5.332	4.703
9	0.000	16.407	23	9.745	23.133	37	19.031	14.064	51	4.278	3.983
10	0.000	17.677	24	10.961	22.693	38	17.977	13.344	52	3.185	3.544
11	0.000	18.948	25	12.176	22.253	39	16.923	12.624	53	2.009	3.605
12	0.000	20.219	26	13.392	21.813	40	15.869	11.904	54	0.967	4.154
13	0.000	21.490	27	14.608	21.374	41	14.816	11.184	55	0.254	5.091
14	0.000	22.760	28	15.824	20.934	42	13.762	10.464			

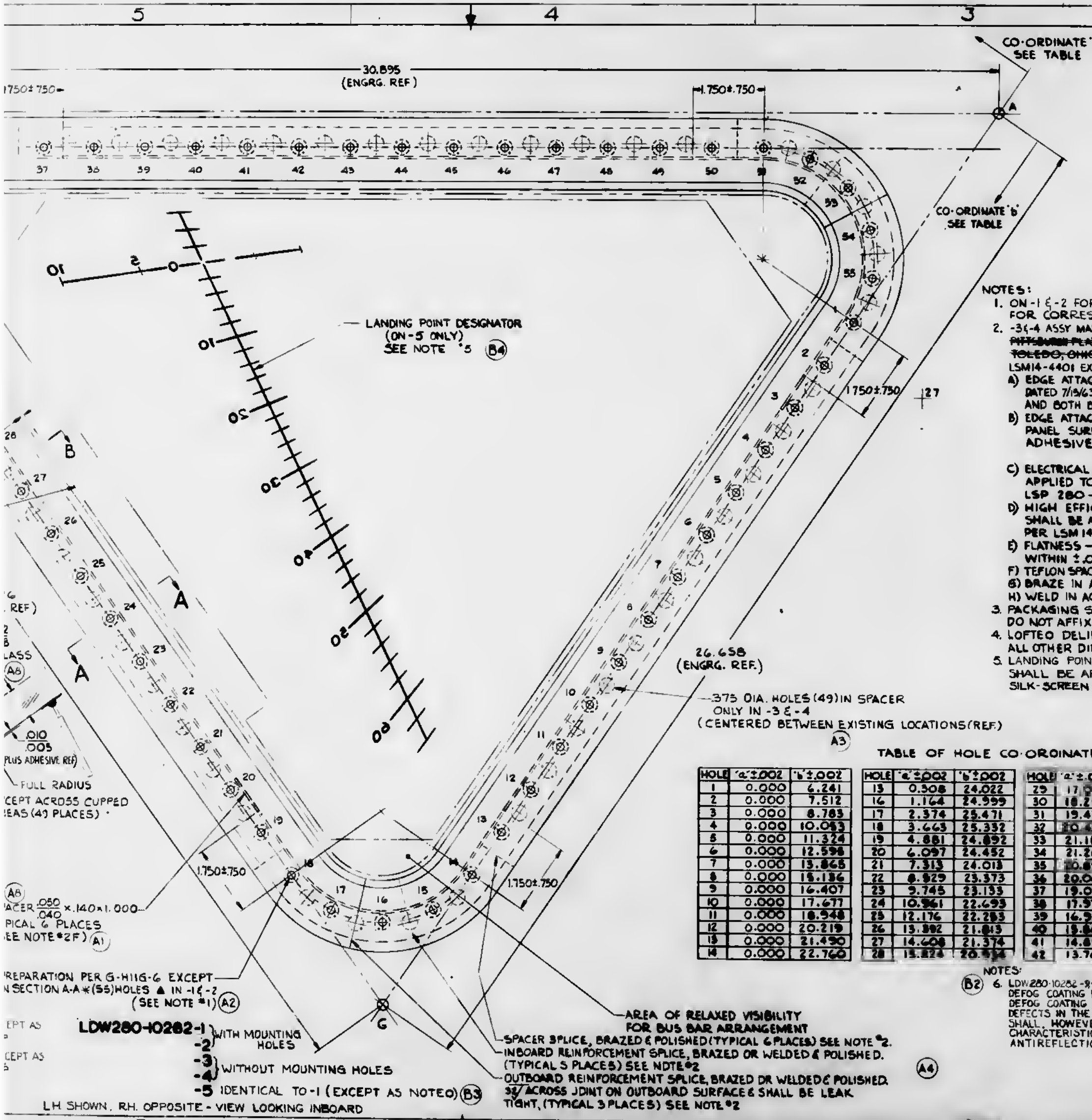
NOTES:

(B2) 6. LDW 280-10282-9, -10, -11 & -12 IDENTICAL TO -1, -2, -3, -4 RESPECTIVELY EXCEPT THAT ELECTRICAL DEFOG COATING PER LSP 280-8 IS NOT REQUIRED. IN THE EVENT THAT THE ELECTRICAL DEFOG COATING IS APPLIED INSPECTION OF THIS COATING SHALL NOT BE REQUIRED AND DEFECTS IN THE COATING SHALL NOT BE CAUSE FOR REJECTION OF THE PART. -9 & -10 SHALL, HOWEVER, BE PROCESSED LIKE -3 & -4 TO INSURE SIMILARITY IN STRUCTURAL CHARACTERISTICS. IN ADDITION -9 & -10 SHALL NOT REQUIRE THE [illegible] ANTIREFLECTION COATING PER LSM 14-4402.

NAS 9-1100

CODE IDENT NO. 26512	SHEET
LDW280-10282	3

02/02


30.895
(ENGRG. REF)
1.750±.750
CO-ORDINATE 'a' SEE TABLE
CO-ORDINATE 'b' SEE TABLE
LANDING POINT DESIGNATOR (ON -5 ONLY) SEE NOTE 5 (B4)
26.658 (ENGRG. REF.)
.375 DIA. HOLES (49) IN SPACER ONLY IN -3 & -4 (CENTERED BETWEEN EXISTING LOCATIONS (REF.) (A3)
A
B
G
.010
.005
PLUS ADHESIVE REF)
FULL RADIUS
CEPT ACROSS CUPPED
EAS (49 PLACES)
ACER .050/.040 × .140 × 1.000
PICAL 6 PLACES
EE NOTE #2F) (A1)
REPARATION PER G-H116-6 EXCEPT
N SECTION A-A ✱(55) HOLES ▲ IN -1 & -2 (SEE NOTE #1) (A2)
AREA OF RELAXED VISIBILITY FOR BUS BAR ARRANGEMENT
SPACER SPLICE, BRAZED & POLISHED (TYPICAL 6 PLACES) SEE NOTE #2.
INBOARD REINFORCEMENT SPLICE, BRAZED OR WELDED & POLISHED. (TYPICAL 5 PLACES) SEE NOTE #2
OUTBOARD REINFORCEMENT SPLICE, BRAZED OR WELDED & POLISHED. 32/ ACROSS JOINT ON OUTBOARD SURFACE & SHALL BE LEAK TIGHT, (TYPICAL 3 PLACES) SEE NOTE #2
(A4)
LDW280-10282-1 -2 WITH MOUNTING HOLES
-3 -4 WITHOUT MOUNTING HOLES
-5 IDENTICAL TO -1 (EXCEPT AS NOTED) (B3)
LH SHOWN, RH OPPOSITE - VIEW LOOKING INBOARD

NOTES:

1. ON -1 & -2 FOR HOLES MARKED ▲, SEE DRAWING LDW280M10105 & LDW280M10367 FOR CORRESPONDING HOLE PATTERN.
2. -3 & -4 ASSY MAY BE PURCHASED FROM CORNING GLASS WORKS, CORNING, N.Y. (14674), ~~PITTSBURGH PLATE GLASS CO., PITTSBURGH, PA. (11695) OR LIBBY OWENS FORD GLASS CO., TOLEDO, OHIO (75829)~~, AND SHALL BE FABRICATED IN ACCORDANCE WITH LSM14-4401 EXCEPT 'MOR' SHALL BE 50,000 PSI, AND THE FOLLOWING:
   - A) EDGE ATTACHMENT-SHALL BE FABRICATED FROM KOVAR "A" ALLOY PER AMS 7728 DATED 7/15/63. FACE SHEETS SHALL BE COLD ROLLED, SPACERS SHALL BE HOT ROLLED AND BOTH BRIGHT ANNEALED.
   - B) EDGE ATTACHMENT SURFACE PREPARATION, GLASS PANEL SURFACE TREATMENT, AND STRUCTURAL BOND ADHESIVE SYSTEM-PER LSP280-8.
   - C) ELECTRICAL DEFOG COATING SYSTEM SHALL BE APPLIED TO OUTBOARD SURFACES OF GLASS PER LSP 280-8.
   - D) HIGH EFFICIENCY ANTIREFLECTION COATING SYSTEM SHALL BE APPLIED TO INBOARD SURFACES OF GLASS PER LSM 14-4402.
   - E) FLATNESS - PANEL ASSYS -3 & 4 SHALL BE FLAT WITHIN ±.010.
   - F) TEFLON SPACERS (6) TO BE FABRICATED FROM TFE PER AMS 3651B.
   - G) BRAZE IN ACCORDANCE WITH MIL-B-7883.
   - H) WELD IN ACCORDANCE WITH MIL-W-8611.
3. PACKAGING SHALL IDENTIFY PROPER PART NUMBER. DO NOT AFFIX IDENTIFICATION ON PART PROPER.
4. LOFTED DELINEATIONS TO HAVE ±.015 TOLERANCE. ALL OTHER DIMENSIONS TO HAVE ±.005 TOLERANCE, EXCEPT AS NOTED.
5. LANDING POINT DESIGNATOR (LPD) - THE LANDING POINT DESIGNATOR SHALL BE APPLIED TO THE OUTER SURFACE OF THE PANEL BY SILK-SCREEN PROCESS OR EQUIVALENT

TABLE OF HOLE CO-ORDINATES

HOLE	'a' ±.002	'b' ±.002
1	0.000	6.241
2	0.000	7.512
3	0.000	8.783
4	0.000	10.053
5	0.000	11.324
6	0.000	12.598
7	0.000	13.865
8	0.000	15.136
9	0.000	16.407
10	0.000	17.677
11	0.000	18.948
12	0.000	20.219
13	0.000	21.490
14	0.000	22.760
15	0.308	24.022
16	1.164	24.999
17	2.374	25.471
18	3.663	25.332
19	4.881	24.892
20	6.097	24.452
21	7.313	24.013
22	8.529	23.373
23	9.745	23.133
24	10.961	22.693
25	12.176	22.253
26	13.392	21.813
27	14.608	21.374
28	15.824	20.934
29	17.940	20.494
30	18.256	20.054
31	19.472	19.614
32	20.477	18.975
33	21.118	17.969
34	21.264	16.767
35	20.898	15.654
36	20.084	14.784
37	19.031	14.064
38	17.977	13.344
39	16.923	12.624
40	15.869	11.904
41	14.816	11.184
42	13.762	10.464
43	12.708	9.744
44	11.654	9.024
45	10.601	8.304
46	9.547	7.583
47	8.453	6.863
48	7.439	6.143
49	6.386	5.423
50	5.332	4.703
51	4.278	3.983
52	3.188	3.544
53	2.009	3.608
54	0.967	4.184
55	0.254	5.091

NOTES:

(B2) 6. LDW280-10282-9,-10,-11 & -12 IDENTICAL TO -1,-2,-3, & -4 RESPECTIVELY EXCEPT THAT ELECTRICAL DEFOG COATING PER LSP 280-8 IS NOT REQUIRED. IN THE EVENT THAT THE ELECTRICAL DEFOG COATING IS APPLIED, INSPECTION OF THIS COATING SHALL NOT BE REQUIRED AND DEFECTS IN THE COATING SHALL NOT BE CAUSE FOR REJECTION OF THE PART. -11 & -12 SHALL, HOWEVER, BE PROCESSED LIKE -3 & -4 TO INSURE SIMILARITY IN STRUCTURAL CHARACTERISTICS. IN ADDITION, -9, -10, -11 & -12 SHALL NOT REQUIRE THE HIGH EFFICIENCY ANTIREFLECTION COATING PER LSM 14-4402.

NOTES:

5(A) SELF-LUMINOUS MATERIAL - SELF LUMINOUS MATERIAL SHALL CONSIST OF A COMPATIBLE BLEND OF PHOSPHOR, RADIOACTIVE ACTIVATOR AND A BINDER THAT SHALL SATISFY THE REQUIREMENTS SPECIFIED HEREIN. COLOR FOR THE LANDING POINT DESIGNATOR SHALL BE IN ACCORDANCE WITH THE FOLLOWING. JEDEC P-7 (YELLOW COMPONENT) GE CATALOG # 118-2-1

(B) BIOLOGICAL EFFECTS - THE LANDING POINT DESIGNATOR SHALL REMAIN, UNDER ALL COMBINATIONS OF THE ENVIRONMENTAL CONDITIONS, BIOLOGICALLY SAFE AND CHEMICALLY INERT.

(C) RADIATION - TOTAL DETECTABLE RADIATION FROM THE LANDING POINT DESIGNATOR SHALL BE LIMITED TO THE FOLLOWING MAXIMUM VALUES WHEN VIEWED OPPOSITE TO THE MARKINGS.
- (a) ONE CENTIMETER FROM THE MARKED SURFACE - 5.0 MILLI-ROENTGENS/HOUR
- (b) FIVE CENTIMETERS FROM THE MARKED SURFACE - 1.5 MILLI-ROENTGENS/HOUR

(D) PERFORMANCE - BRIGHTNESS MEASUREMENTS SHALL BE TAKEN AFTER THE SELF-LUMINOUS DEVICE HAS BEEN IN A DARK ENVIRONMENT FOR AT LEAST 15 MINUTES, TO PERMIT THE PHOSPHORESCENCE TO DECAY TO A NEGLIGIBLE LEVEL. THE LANDING POINT DESIGNATOR SHALL DISPLAY LEVELS OF BRIGHTNESS AS FOLLOWS.
JEDEC P-7 (YELLOW COMPONENT) MINIMUM BRIGHTNESS (FOOT LAMBERTS) TO BE DETERMINED. MANUFACTURER TO ESTABLISH MINIMUM BRIGHTNESS BASED ON END USE REQUIREMENTS ONE YEAR FROM DELIVERY OF 0.1 FOOT LAMBERTS MINIMUM BRIGHTNESS.

NAS 9-1100

CODE IDENT NO. 26512
LDW280-10282 SHEET 3

GRUMMAN AIRCRAFT ENGINEERING CORP. BETHPAGE, L. I., NEW YORK
LEM
H 26512 LDW280-10282 B
SCALE FULL SHEET 3